

What is claimed is:

- 1           1.       A semiconductor laser module comprising:  
2           a semiconductor substrate;  
3           a laser diode secured on said substrate for emission of a forward laser  
4 beam from a forward end thereof and for emission of a backward laser beam  
5 from a point source on a rearward end thereof in a horizontal direction; and  
6           a photodiode secured on said substrate, said photodiode having a light  
7 receiving surface extending in the horizontal direction by length L from an  
8 edge proximate to the laser diode for receiving a lower half of said backward  
9 laser beam, said light receiving surface being lower than said point source by a  
10 vertical distance Y, said edge being spaced a horizontal distance Z from said  
11 point source of the laser diode,  
12       wherein the horizontal distance Z is equal to or greater than  $(Y / \tan \theta) - L$ ,  
13 where  $\theta$  is a vertical angle in which said lower half of the backward laser beam  
14 radiates from said point source.
- 1           2.       The semiconductor laser module of claim 1, wherein said laser  
2 diode and said photodiode are not covered with resin.
- 1           3.       The semiconductor laser module of claim 1, wherein said  
2 substrate has an upper surface and a lower surface, and wherein said laser  
3 diode is secured on said upper surface and said photodiode is secured on said  
4 lower surface.
- 1           4.       The semiconductor laser module of claim 2, wherein said lower  
2 surface and said light receiving surface are parallel to each other.
- 1           5.       The semiconductor laser module of claim 1, wherein said  
2 semiconductor substrate is formed of silicon.

1           6.       The semiconductor laser module of claim 1, wherein said  
2 substrate is formed of a single-crystalline silicon and said lower surface is an  
3 anisotropically etched surface.

1           7.       The semiconductor laser module of claim 1, further comprising a  
2 laser driver for driving the laser diode with a high frequency electrical signal.

1           8.       The semiconductor laser module of claim 7, wherein said laser  
2 driver is secured on said lower surface in a position adjacent to said  
3 photodiode and remote from said laser diode.

1           9.       The semiconductor laser module of claim 8, wherein said  
2 substrate is formed with a recess in which said lower surface is created and  
3 said photodiode and said laser driver are secured, further comprising:  
4       an electrode patterned on said upper surface extending from said laser  
5 diode to a position close to said laser diode; and  
6       a bonding wire for connecting said laser diode to one end of said  
7 electrode, whereby said high frequency electrical signal is supplied through  
8 said bonding wire and said electrode to said laser diode.